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(54) Title: IMPROVED METHOD FOR TRANSFERRING NUCLEIC ACID INTO THE STRIPED MUSCLE AND COMBINATION THEREFOR

(54) Titre: AMELIORATION DU TRANSFERT D'ACIDE NUCLEIQUE DANS LE MUSCLE STRIE ET COMBINAISON PERMETTANT LA MISE EN OEUVRE DU PROCEDE

(57) Abstract

The invention concerns an improved method for transferring in vivo into the cells of striped muscles nucleic acids or nucleic acids combined with products for enhancing the efficacy of such transfers. The invention also concerns the combination of a nucleic acid and the transfer method for use in gene therapy.

(57) Abrégé

La présente invention se rapporte à une amélioration du transfert *in vivo* dans les cellules des muscles striés d'acides nucléiques ou d'acides nucléiques associés à des produits permettant d'augmenter le rendement de tels transferts, et à la combinaison d'un acide nucléique et du procédé de transfert selon l'invention pour leur utilisation en thérapie génique.

ABSTRACT

The invention provides a method of transferring *in vivo* a molecule into a striated muscle cell. More specifically, a method of the invention comprises contacting *in vivo* a striated muscle cell with a molecule, and electrically stimulating the muscle cell with one or more unipolar pulses of an electric field intensity ranging from 1 to 800 V/cm^2. In one embodiment, the molecule is a nucleic acid encoding a protein of interest. For example, the invention provides methods of promoting angiogenesis and hemostasis.